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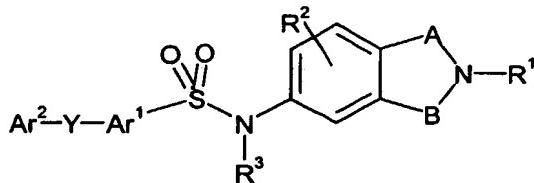
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(54) Title: SULFONAMIDE DERIVATIVES AS ANTIPSYCHOTIC AGENTS



(I)

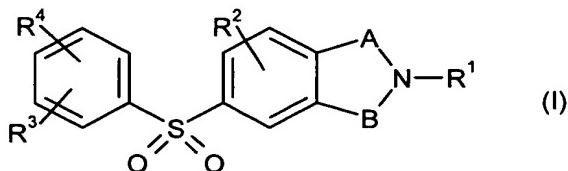
(57) Abstract: The invention provides compounds of formula (I) wherein A and B represent the groups $-(CH_2)_m-$ and $-(CH_2)_n-$ respectively; R¹ represents C₁₋₆alkyl; R² represents hydrogen, halogen, hydroxy, cyano, nitro, hydroxyl-C₁₋₆alkyl, trifluoromethyl, trifluoromethoxy, C₁₋₆alkyl, C₁₋₆alkoxy, $-(CH_2)_pC_{3-6}$ cycloalkyl, $-(CH_2)_pOC_{3-6}cy-$

cloalkyl, -CO-C₁₋₆alkyl, -SO-C₁₋₆alkyl, -SOC₁₋₆alkyl, -S-C₁₋₆alkyl, -CO₂C₁₋₆alkyl, -CO₂NR⁴R⁵, -SO₂NR⁴R⁵, -(CH₂)_pNR⁴COR⁵, an optionally substituted aryl group, an optionally substituted heteroaryl group or an optionally substituted heterocycl group; R³ represents hydrogen or C₁₋₆alkyl; Ar¹ represents an optionally substituted heteroaryl group; Ar² represents an optionally substituted phenyl or an optionally substituted heteroaryl group; Y represents a bond, -O-, -C₁₋₆alkyl-, -CR⁶R⁷X-, -XCR⁶R⁷-, -NR⁸CO- or -CONR⁸-; X represents oxygen, sulfur, -SO- or -SO₂-; R⁴ and R⁵ each independently represent hydrogen or C₁₋₆alkyl or, together with the nitrogen or other atoms to which they are attached, form an azacycloalkyl ring or an oxo-substituted azacycloalkyl ring; R⁶ and R⁷ each independently represent hydrogen, C₁₋₆alkyl or fluoro; R⁸ represents hydrogen or C₁₋₆alkyl; m and n independently represent an integer selected from 1 and 2; p independently represents an integer selected from 0, 1, 2 and 3; or a pharmaceutically acceptable salt, solvate or pharmaceutically acceptable derivative thereof. The compounds are useful in therapy, in particular as antipsychotic agents.

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ABSTRACT OF THE DISCLOSURE

The invention provides compounds of formula (I):



wherein

A and B represent the groups $-(CH_2)_m-$ and $-(CH_2)_n-$ respectively;

R¹ represents hydrogen or C₁₋₆alkyl;

R² represents hydrogen, halogen, hydroxy, cyano, nitro, hydroxyC₁₋₆alkyl, trifluoromethyl, trifluoromethoxy, C₁₋₆alkyl, C₁₋₆alkoxy, C₁₋₆fluoroalkoxy, -(CH₂)_pC₃, ₆cycloalkyl, -(CH₂)_pOC₃₋₆cycloalkyl, -COC₁₋₆alkyl, -SO₂C₁₋₆alkyl, -SOC₁₋₆alkyl, -S-C₁₋₆alkyl, -CO₂C₁₋₆alkyl, -CO₂NR⁵R⁶, -SO₂NR⁵R⁶, -(CH₂)_pNR⁵R⁶, -(CH₂)_pNR⁵COR⁶, optionally substituted aryl ring, optionally substituted heteroaryl ring or optionally substituted heterocycl ring;

R³ represents hydrogen, halogen, hydroxy, cyano, nitro, hydroxyC₁₋₆alkyl, trifluoromethyl, trifluoromethoxy, C₁₋₆alkyl, C₁₋₆alkoxy, C₁₋₆fluoroalkoxy, -(CH₂)_pC₃, ₆cycloalkyl, -(CH₂)_pOC₃₋₆cycloalkyl, -COC₁₋₆alkyl, -SO₂C₁₋₆alkyl, -SOC₁₋₆alkyl, -S-C₁₋₆alkyl, -CO₂C₁₋₆alkyl, -CO₂NR⁷R⁸, -SO₂NR⁷R⁸, -(CH₂)_pNR⁷R⁸ or -(CH₂)_pNR⁷COR⁸;

R⁴ represents hydrogen, hydroxy, C₁₋₆alkyl, C₁₋₆alkoxy, C₁₋₆fluoroalkoxy, trifluoromethyl, trifluoromethoxy, halogen, -OSO₂CF₃, -(CH₂)_pC₃₋₆cycloalkyl, -(CH₂)_qOC₁₋₆alkyl or -(CH₂)_pOC₃₋₆cycloalkyl;

R⁵ and R⁶ each independently represent hydrogen, C₁₋₆alkyl or, together with the nitrogen or other atoms to which they are attached, form an azacycloalkyl ring or an oxo-substituted azacycloalkyl ring;

R⁷ and R⁸ each independently represent hydrogen or C₁₋₆alkyl;

m and n independently represent an integer selected from 1 and 2;

p independently represents an integer selected from 0, 1, 2 and 3;

q independently represents an integer selected from 1, 2 and 3;

or a pharmaceutically acceptable salt or solvate thereof,

with the proviso that the compounds 8-hydroxy-3-methyl-7-phenylsulfonyl-2,3,4,5-tetrahydro-1H-3-benzazepine, 8-hydroxy-7-4-(hydroxyphenyl)sulfonyl-2,3,4,5-tetrahydro-1H-3-benzazepine, 7-phenylsulfonyl-1,2,3,4-tetrahydroisoquinoline and 7-phenylsulfonyl-1,2,3,4-tetrahydroisoquinoline hydrochloride are excluded.

The compounds are useful in therapy, in particular as antipsychotic agents